



Help Me Grow Orange County

The Efficacy and Impact of Community Training Using the Ages and Stages Questionnaires®

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The impact of training on the Ages and Stages Questionnaires on accurate developmental screening and improved screening rates among attendees.

Executive Summary

Help Me Grow Orange County (HMG-OC) connects children and families to developmental services to enhance the development, behavior, and learning of children throughout Orange County, California. As of spring 2011, when this survey was conducted, HMG-OC had been operating for approximately 4.5 years.

Promoting developmental screening is one of five core program components of HMG-OC. One method used by HMG-OC to promote screening is to provide full day (5.5 hour) trainings on using the Ages and Stages Questionnaires (ASQ). The ASQ is evidence based screening tool that accurately identifies children at risk for developmental delay and is recommended by a number of professional organizations including the American Academy of Pediatrics, State of California Department of Health and Human Services and the California Institute on Mental Health. The ASQ is also one of the endorsed screening tools listed on the NAEYC Early Childhood Program Standards and Accreditation Criteria.

In spring 2011, HMG-OC surveyed past ASQ training attendees to assess the efficacy and the impact of the trainings on participants' comfort in scoring and interpreting ASQ questionnaires and on their current use of developmental screening in their agencies. Furthermore, open-ended questions were asked to assess challenges and barriers to screening efforts. Of the 262 surveys that were sent out via an email distribution list, 198 were successfully delivered. 81 surveys were opened by the recipients and 60 were completed for a return rate of 30%. Major findings include the following:

- 90% responded that the training taught them to correctly administer the ASQ-3
- 76% responded that the number of children screened in their program increased following the training.
- 92% responded that they were more confident in making referrals based upon ASQ-3 cut-off scores following the training
- 88% responded that they were more confident in addressing the needs of children whose scores fall in the monitoring zone of the ASQ-3 (1 to 2 standard deviations below the mean)
- 100% of those who already had used the ASQ-3 responded that the training helped them use the tool more effectively



Extended Report on Physician Satisfaction Survey Spring 2011

Help Me Grow Orange County (HMG-OC) connects children and families to developmental services to enhance the development, behavior, and learning of children throughout Orange County, California. HMG-OC is supported by the Children and Families Commission of Orange County, which allocates revenue from the 1998 Proposition 10 Tobacco Tax. HMG-OC is modeled after Help Me Grow Connecticut (see special issue of Journal of Developmental and Behavioral Pediatrics, 27(1), 2006). As of spring 2011, when this survey was conducted, HMG-OC had been operating for approximately 4.5 years and had developed a partnership with 2-1-1 Orange County to provide the support for the toll free telephone line and shared resource inventory. Below are the program components for HMG-OC.

Making the Connection. Help Me Grow Care Coordinators located at 2-1-1 Orange County with support from Community Liaisons provide intake, triage, referral & connection to developmental services.

Building the Network. Community Liaisons develop ongoing relationships with programs in the community and support the maintenance of an updated resource inventory. Local networking events are held in each region of the county to support in building a developmental services network.

Educating Providers. Team members educate professionals about the importance of developmental surveillance and screening while promoting access to developmental services through Help Me Grow.

Identifying Gaps and Barriers. Data is collected and analyzed to document and identify needs to more effectively connect families to community resources.

Providing Opportunities for Developmental Screening. Developmental screening and monitoring are available by calling the toll free number 1.866.GROW.025 (1.866.476.9025). Parents and caregivers will be provided with information and connection to developmental screening opportunities in the community. If eligible, children can be enrolled in the Help Me Grow Developmental Screening Program.

Introduction

Educating community partners on the importance and use of developmental screening tools is an important piece in connecting families with young children to developmental services. To achieve that end, HMG-OC has been offering comprehensive training on the ASQ to administrators and direct service providers that represent a range of disciplines and programs in Orange County. In an effort to evaluate the role these trainings may have had on county



screening rates, past attendees were asked to complete surveys to evaluate the impact of the training on each attendee's perceived skill at administering and interpreting the ASQ results and on their use of the ASQ in their practice. Specifically, the survey asked about increased screening and referral rates following the training.

METHOD

Subject selection

Surveys were sent via email to every known participant of the ASQ trainings provided by HMG-OC between January 2008 and April 2011. During that time, 14 ASQ trainings were conducted in which registration was open to any interested person, and 4 ASQ trainings were provided specifically to Early Head Start staff. E-mail addresses for the survey were culled from the training registration materials and sign-in sheets.

Measure

The survey was developed by the EPIC Coordinator and HMG-OC Manager and consisted of yes/no, Likert scale and open ended items. The items collect the following data: Participant demographics, efficacy of the training, and impact of the training. Demographic data were gathered to understand the range of disciplines, program types and education levels of the attendees. Efficacy questions asked participants to rate their level of confidence in their use of the ASQ and impact questions examine the link between training and number of children screened and referred. Items on the survey were not numbered because they were created and sent through an internet based program (Constant Contact®) that did not allow for numbering when skip options are included in the survey set-up, as they were in this case. The survey, as it appears on-line through Constant Contact can be found in Appendix A.

Procedures

Constant Contact®, an Email based marketing software program that manages distribution lists and allows for survey development was used to disseminate, collect and analyze the data reported in the following sections. Data from the open ended items were analyzed separately and clumped to evaluate themes and to identify patterns.

RESULTS

Response rates

A total of 262 surveys were sent by email via Constant Contact® to individuals who had attended ASQ trainings between the dates of 1/18/2008 and 4/8/2011. Of the initial surveys sent, 64 were returned as undeliverable. The data indicate that 50 of the returned emails were



for non-existent or cancelled accounts, and 10 were blocked by the agencies’ server. Of the 198 surveys that were successfully delivered to a valid email address, 81 were opened. Of the 81 that were opened 60 were completed and submitted. Therefore the response rate for the survey is 30% as calculated by dividing 60 (completed surveys) by 198 (delivered surveys).

Information about respondents

Respondents to the survey differed in many variables including type of service provided, type of program, level of education, and reason for attending the training. When interpreting the results, it is important to note that although the questions below were required for the survey, there was an error in the Constant Contact® system that allowed individuals to skip items. Because of that, there is a high non-response rate for some of the demographic items. Constant Contact® has been notified and is looking into this issue. Furthermore, there was a response option for a category labeled “other”. In creating the survey, it was thought that the number of categories for responses would capture the range of ASQ training attendees. However, the analysis revealed a significant number of respondents answered the demographic item with the option “other”. When the “other” option was selected, a text box appeared for the respondent to write-in their unique response. In reading the responses, a number of respondents would have fit in a pre-assigned category. This analysis does not attempt to reassign respondents. The data presented in the following tables reflects demographic items in which at least 60% (n=36) of respondents fit into the labeled categories.

Table 1. My Program is best described as (n=36):

Program	Number	Percent of Total
Child Care	3	5.0%
Early Head Start/Head Start	4	6.6%
Early Intervention (Birth to 3)	3	5.0%
Early Childhood Special Education (3 to 5)	1	1.6%
Health Care (Clinic, Medical Office)	0	0
Home Visiting Program	9	15.0%
Parent Education Program	1	1.6%
Private Preschool	2	3.3%
Site-Based School Readiness Program	7	11.6%
Social Service Agency	3	5.0%
State Preschool	3	5.0%
Other	12	20%
No Response (available because of system error)	12	20%

Of the 12 respondents answering “other”, a number may have been included in the home visiting, school readiness or parent educator category above, but identified their role differently (e.g., prevention and intervention or school readiness). Two respondents were with the agency that conducted this training, and not direct service providers.



Table 2. I have the following educational background (n=46):

Educational level	Number	Percent of Total
High School Graduate	1	16%
Child Development Associate	2	3.3%
Other Associate Degree	1	1.6%
Some College	0	0
Bachelor’s Degree	24	40%
Master’s Degree	13	21.6%
Post Master’s Degree (Ph.D., Ed.D., Psy.D, J.D.)	4	6.6%
Medical Degree (M.D., D.O.)	1	1.6
Other	2	3.3%
No Response	12	20%

One respondent listed that she had some child development courses and another that she had an R.N. license. Both of these could fall into the “Some College” category but are left here as “other” to best reflect the respondents self report.

To better understand the survey results, and to help with interpretation, respondents were asked to report on the reason they attended the training. The responses can be found in Table 3.

Table 3. Reason for attending

Reason for Attending	Number	Percent of Total
I was deciding if I wanted my program to begin using a screening tool.	5	8.3%
I was deciding which screening tool to use.	3	5.0%
I needed to learn how to use the Ages and Stages Questionnaires because my program uses it.	26	43.3%
I already used the Ages and Stages Questionnaires but wanted additional training.	15	25.0%
I work for a program that did not screen but partnered with programs that did, so I wanted to learn more.	4	6.6%
I attended because it was required by my employer.	4	6.6%
Other	3	5.0%

Survey Questions

The survey included quantitative (Likert items) and qualitative (open-ended items) that asked past ASQ training participants about the efficacy and the impact of the training. Efficacy items include those that evaluate participants comfort in using and interpreting the questionnaires.



Impact items ask about screening and referral rates following the training. A 4-point Likert scale was used to prevent a neutral response from being recorded. Scores of 1 and 2 are statements in which the respondent disagrees with the statement made, whereas scores of 3 and 4 indicate agreement with the statement. There was one skip-option in the survey. To assess the efficacy of the training for participants already using the ASQ, only those respondents were asked about their perceived effectiveness in using the tool following the training (n=23). Table 5 lists the items and responses that evaluate the efficacy of the training and Table 6 evaluates the impact.

Table 5. Items that measure the efficacy of the training

Questions	Percent of respondents who agree with the indicators
The training prepared me to correctly administer the Ages and Stages Questionnaires.	90%
The training increased my confidence in referring children who's Ages and Stages Questionnaires fall below the cut-off.	92%
The training increased my confidence in addressing the needs of children whose scores fall in the monitoring zone. (close to the cut-off).	88%
The training helped me use the tool more effectively. (asked only to those who responded that they had used the tool before the training; n=23)	100%

Table 6. Impact of ASQ training on screening and referral rates

Questions	Percent of respondents who agree with the indicators
Following the training, the number of children in my program who received developmental screening increased.	76%
Following the training, the number of children I have referred for further evaluation has increased.	72%

Results indicate that the training did impact the number of screenings that were conducted in Orange County 76% of respondents from all groups indicated an increase in the number of screenings they or their agency conducted following the training.

Similarly, 71% of respondents reported an increase in the number of children they have referred for further evaluation through Part C or B of IDEA. As indicated in table 5., 90% of respondents felt more confident in their use of the tool and 92% felt more comfortable referring children for further evaluation.



Difference between groups

The survey results were evaluated to determine if there were differences between groups of attendees on the efficacy and impact ratings. For example, attendees who were employed by programs who currently engaged in routine screenings might improve their efficacy in use, but not their screening rates (e.g., MOMS, Early Head Start/Head Start and School Readiness Nurses) whereas attendees from private preschools might increase both their efficacy of use and their screening rates. Alternatively, training participants who attended because they partnered with agencies that screened with the ASQ but did not screen themselves would indicate that the training did not impact their screening or referral rates. The tables below look at mean scores and demographics for results filtered by screening and referral rates (e.g., those who responded in the negative or affirmative that the number of children screened has increased following the training, and the number of children referred for further evaluation increased following the training).

Table 7. Screening Rate: Differences between groups of attendees by increased screening rate.

Following the training, the number of children in my program who received developmental screening increased	Mean and for groups responding with “somewhat or strongly disagree”	Mean for groups responding with “somewhat or strongly agree”
The training prepared me to correctly administer the ASQ	3.2 (n=14)	3.6 (n=46)
The training increased my confidence in referring children who’s Ages and Stages Questionnaires fall below the cut-off.	3.1 (n=14)	3.5 (n=46)
The training increased my confidence in addressing the needs of children whose scores fall in the monitoring zone (close to the cut-off).	2.6 (n=14)	3.5 (n=43)
The training helped me use the tool more effectively (asked only to those who responded that they had used the tool before the training; n=23)	3.5 (n=6)	3.6 (n=17)
Following the training, the number of children I have referred for further evaluation has increased	1.9 (N=14)	3.2 (n=43)



Table 8. Referral rate: Differences between groups of attendees by increased referral rate.

	Mean and for groups responding with “somewhat or strongly disagree”	Mean for groups responding with “somewhat or strongly agree”
Following the training, the number of children I have referred for further evaluation has increased		
The training prepared me to correctly administer the ASQ	3.1 (n=16)	3.7 (n=41)
The training increased my confidence in referring children who’s Ages and Stages Questionnaires fall below the cut-off.	3.2 (n=16)	3.5 (n=41)
The training increased my confidence in addressing the needs of children whose scores fall in the monitoring zone (close to the cut-off).	3.0 (n=16)	3.4 (n=41)
Following the training, the number of children in my program who received developmental screening increased	2.1 (n=16)	3.3 (n=41)
Skip option item: The training helped me use the tool more effectively (asked only to those who responded that they had used the tool before the training; n=23)	3.9 (n=7)	3.5 (n=16)

Responses to open-ended responses

There were two open ended questions to better understand the benefits and challenges to developmental screening from the respondents’ perspectives, and to see how HMG-OC can further support community partners in their screening and early identification efforts. The questions were asked to get an overall understanding of county-wide perspectives. Because these were open ended questions, some respondents included more than one benefit or challenge. Each benefit or challenge listed is included below in tables 9 and 10.

Table 9. Benefits to screening

Theme	Respondents
Assists with early identification and referral	16
Helps with parent communication and education	8
Validity, evidence based, in depth	8
Information on supporting development	6
Share information with other professionals	5



Table 10. Barriers to screening

Theme	Respondents
No Barriers	9
Parent factors – (teen, literacy, participation)	9
Resources (time, access to tool, space)	8
Administration (selecting correct interval, accuracy)	3
Concerns about validity of parent report	3

Discussion

The responses to the Likert items and to the open-ended items on the survey lead to some broad observations and reflections. The data from this survey suggests that following the ASQ training, attendees in general increased both their screening rates, and their referral rates to Early Intervention (RCOC) or Early Childhood Special Education (ECSE). There was no link between current screening status (e.g., using or not using the ASQ) and increased screening or referral rates following the training. Furthermore, attendees who had previously used the ASQ for screening rated the efficacy of the training similar to attendees who have not used screening tools or the ASQ prior to the training with one exception. Those respondents who did not increase screening rate following the training reported less confidence in addressing the needs of children whose scores fall in the monitoring zone (close to the cut-off) ($M=2.6$, $n=14$) than those who reported increased screening rates ($M=3.5$, $n=43$).

The survey results also explain why the ASQ training may not have led to increased screening or referral rates for some of the attendees. Specifically, agencies that do not themselves screen did not have increased screening or referral rates following the training. The data supporting this assertion derives more from the open-ended responses of those attendees who did not indicate increased screening or referral rates. For example, of those who agreed with the statement “Following the training, the number of children in my program who received developmental screening increased”, 30 of the 37 respondents (81%) listed benefits of either the ASQ screening tool, or screening efforts in general. Interesting, 6 respondents (6.2%) who indicated that their program “screens more” following the training wrote “not screening” in the comments. Compare this to the responses from those who indicated that they disagree with the statement above in which 6 of the 12 (50%) respondents indicated they were not screening and the other 50% listed benefits of screening.

There were similar findings when reviewing the challenges to screening for those agencies that indicated an increase in screening following the training. Despite the fact that these agencies responded that they are screening, 60% still admit to challenges ranging from time, space, parent participation, and issues related to the ASQ itself. Only 11 of the 37 responses (30%) indicated that there were no barriers to screening efforts. Of those who responded that they have not increased their screening rates following the training, 9 of the 12 (75%) indicated that



they are not screening, or do not have access to clients. The other 3 listed no access to the tool, screening is only a “first step” and need for Vietnamese and Arabic versions as barriers.

Summary

Overall, the data from the survey indicates benefits to providing training on developmental screening using the ASQ. Not only does training ensure accurate use of the ASQ (90% of respondents), it directly increases the number of children in Orange County who receive screening (76% of respondents) and who are referred for further evaluation for possible developmental delay (72% of respondents). The data in support of continued training is even stronger for those individuals who already use and claim familiarity with the ASQ. Specifically, 100% of training attendees who previously used the ASQ in their practices responded that the training provided by HMG-OC increased their effective use of the tool. Therefore, HMG-OC should continue to offer community based training on the ASQ to increase effective use of the tool, screening rates for children in Orange County, and referral rates for children at risk to either Regional Center of Orange County or the school districts.



Appendix A
ASQ Training Participant Survey
(As displayed on Constant Contact)

We appreciate your feedback

* Required Question(s)

Progress :

* **I attended the Ages and Stages Questionnaire training through Help Me Grow Orange County because (please select the most accurate response):**

- I was deciding if I wanted my program to begin using a screening tool.
- I was deciding which screening tool to use.
- I needed to learn how to use the Ages and Stages Questionnaires because my program uses it.
- I already used the Ages and Stages Questionnaires but wanted additional training.
- I work for a program that did not screen but partnered with programs that did, so I wanted to learn more.
- I attended because it was required by my employer.
- Other

* **The training prepared me to correctly administer the Ages and Stages Questionnaires.**

- | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly Disagree | Somewhat Disagree | Somewhat Agree | Strongly Agree |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

* **Following the training, the number of children in my program who received developmental screening increased.**

- | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly Disagree | Somewhat Disagree | Somewhat Agree | Strongly Agree |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



* Following the training, the number of children I have referred for further evaluation has increased.

Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* The training increased my confidence in addressing the needs of children whose scores fall in the *monitoring zone* (close to the cut-off).

Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* I had used the Ages and Stages Questionnaires prior to the training.

Yes

No

Continue >

The training helped me use the tool more effectively.

Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* If you are screening with the Ages and Stages Questionnaires, please identify the main benefits to your clients and/or to your staff. Please enter the words "not screening" if this does not apply to you. (open text box)

* Please list any barriers to your screening efforts. (open text box)

* How else can Help Me Grow Orange County support your screening and/or early identification efforts? (open text box)

Continue >



My job is best described as:

- Administrator
- Early Childhood Educator
- Mental Health Provider
- Nurse
- Occupational Therapist
- Parent Educator
- Physical Therapist
- Physician
- Special Educator
- Speech and Language Therapist
- Other

*** My program is best described as:**

- Child Care
- Early Head Start/ Head Start
- Early Intervention (Birth to 3)
- Early Childhood Special Education (3 to 5)
- Health Care (Clinic, Medical Office)



- Home Visiting Program
- Parent Education Program
- Private Preschool
- Site-Based School Readiness Program
- Social Service Agency
- State Preschool
- Other

***I have the following educational background:**

- High School Graduate
- Child Development Associate
- Other Associate Degree
- Some College
- Bachelor's Degree
- Master's Degree
- Post Master's Degree (Ph.D., Ed.D, Psy.D, J.D.)
- Medical Degree (M.D., D.O.)
- Other

Thank you for your participation in our survey. We value and appreciate your input.

If you have any questions about the survey or would like more information about Help Me Grow Orange County, please call our toll free number 866.GROW.025 (866.476.9025).